Environment

In 2007, Forbes Magazine released its list of America's Greenest States, a ranking compiled from a variety of environmental categories including air quality, carbon footprint, and eco-friendly policy. New Hampshire ranked 19th, besting only Maine among the six New England states. Despite this low score, there is ample evidence suggesting that New Hampshire is on track, at both the state and local levels, to improve environmental quality.

Monitoring Air Pollution Transfer

Since 1962, the New Hampshire Department of Environmental Services (DES) has operated a network of air quality monitors throughout the state measuring the ambient levels of ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and particulate matter. The pollutants measured by these air quality monitors are organized into two main categories: "criteria air pollutants" (ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead), and "toxic air pollutants" (mercury, dioxin, and greenhouse gases). The Environmental Protection Agency has set National Ambient Air Quality Standards for several of these pollutants, and the collected New Hampshire data suggest minimal emissions of them.[1]

However, air quality in New Hampshire is not necessarily a local issue. As air travels across thousands of miles, numerous pollutants can accumulate and eventually impact local air quality. The table below describes the distances that various pollutants can travel.

The vast distances traveled by these pollutants suggest that all states need to look beyond their borders to ensure future environmental improvement. To this end, New Hampshire has joined with several other Northeast and Mid-Atlantic states to create the Regional Greenhouse Gas Initiative (RGGI). Scheduled for implementation at the end of 2008, the RGGI partnership will play an important role in reducing toxic emissions, primarily through a variety of market-based programs.[2]

[1] Air Monitoring. New Hampshire Department of Environmental Services. Accessed December 31, 2007. <www.des.state.nh.us/ard/air_monitoring.htm>.

[2] Regional Greenhouse Gas Initiative (RGGI). New Hampshire Department of Environmental Services. Accessed January 25, 2008. <www.des.state.nh.us/ard/climatechange/rggi.htm>.

Category	Range	Pollutants Transported
Local	less than 20-30 miles	Particles, sulfur dioxide, oxides of nitrogen, volatile organic gases (may contain toxic materials), carbon monoxide, mercury (some forms), ozone (in some cases)
Regional	20-30 miles up to 1,000 miles	Ozone, small particles (may contain toxic materials), mercury (some forms)
National	1,000 to 3,000 miles	Dioxin, very small particles (may contain toxic materials), mercury (some forms)
Global	Greater than 3,000 miles	CFCs (chlorofluorocarbons), mercury (some forms), carbon dioxide

Source: New Hampshire Department of Environmental Services

Environmental Partnerships in New Hampshire

Across New Hampshire, numerous programs are working to both reduce pollution and raise awareness of environmental issues. At the local level, the Plymouth Area Renewable Energy Initiative is a community-based program whose mission is to encourage energy conservation, efficient practices, and the use of renewable energy in local homes. As of 2007, the program had overseen the installation of more than 35 solar hot water systems in Southern New Hampshire. At the state level, the Granite State Clean Cities Coalition is a collection of nearly 75 public and private agencies who use US Department of Energy funds to support the consumption of alternative fuels.[3] In 2007, state officials recognized Cranmore Mountain Resort, a Clean Cities Coalition member, for their promotion of "Biodiesel Days," an integral part of the Cranmore Goes Green environmental program.

Road Salt

According to the New Hampshire Department of Transportation, streams in four watersheds, serving the towns of Salem, Windham, Derry, Londonderry, Auburn, and Chester do not meet water quality standards due to high levels of chlorides. The largest source of these chlorides is from road salt spread in the wintertime on state, municipal, and private roads, in addition to de-icing that takes place in commercial parking lots. Other sources of chlorides include food waste, the discharge from septic systems, and the process of water-softening.[4]

Understanding the sources of this pollution and implementing an effective solution has been the work of several state agencies. Between 2002 and 2007, water quality testing was conducted by the NH Department of Environmental Services, Department of Transportation, and the Environmental Protection Agency. The purpose of these tests has been to determine the total maximum daily load (TMDL) that each watershed can receive before water quality standards are compromised. In coordination with this study, the DOT and DES have established a salt reduction planning committee consisting of town highway departments, regional planning commissions, state and federal agencies, the University of New Hampshire, and Plymouth State University. The final results from both the TMDL study and the reduction committee are scheduled to be released in mid-2008.[5]

Toxic Release Inventory

Both federal facilities and private manufacturers are required to report information on toxic chemical releases and other waste management activities. These reports, known as the Toxics Release Inventory, are maintained in a publicly available EPA database. In 2005, over 5.2 million pounds of toxic chemicals were released in New Hampshire, representing a decrease of 1.3 percent from 2004. Nationwide, 23,461 facilities reported disposing of 4.34 billion pounds of almost 650 toxic chemicals. A large portion of these releases were accidental, as 88 percent of the total was disposed of or otherwise released on-site, while only 12 percent was processed off-site.[6]

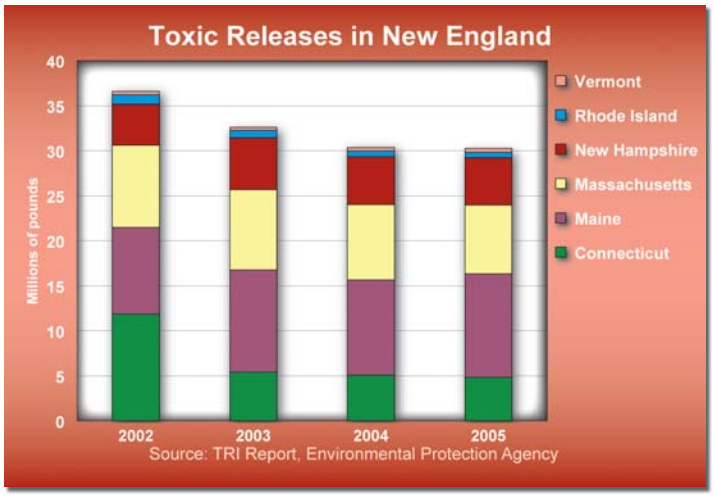
[3] Granite State Clean Cities Coalition. Accessed January 10, 2008. <www.granitestatecleancities.org>.

[4] "Water Quality Study." Rebuilding I93: Salem to Manchester. New Hampshire Department of Transportation. Accessed January 10, 2008. <www.rebuildingi93.com/content/environmental/waterquality>.

[5] ibid.

[6] 2005 TRI Public Data Release. June 8, 2007. US Environmental Protection Agency. Accessed January 11, 2008. <www.epa.gov/triexplorer/statefactsheet.htm>.

Heightened awareness of the dangers associated with these toxic releases, coupled with improving disposal technologies, have resulted in fewer releases over time. Since 2002, over 751 thousand fewer pounds of toxics have been released in New Hampshire, a decrease of more than 15 percent. This trend is reflected across New England, as nearly six million fewer pounds of toxics were released throughout the six-state region. Some of the largest reducers of toxic release over the four-year period were the states of Connecticut (59 percent decrease in toxic releases since 2002), Maine (20 percent), and Massachusetts (16 percent).



Toxic Release Inventory	2003	2004	2005	2006	Source
On-site and Off-site Disposal and Other Releases in Pounds					
New Hampshire	5,783,744	5,326,521	5,256,977	4,173,403	EPA
Percent Change	27.3%	-7.9%	-1.3%	-20.6%	NHES/EPA
New England	32,643,877	30,405,654	30,236,122	27,725,988	EPA
Percent Change	-10.9%	-6.9%	-0.6%	-8.3%	NHES/EPA
U.S. (thousands)	4,442,178	4,238,737	4,353,946	4,248,865	EPA
Percent Change	-7.0%	-4.6%	2.7%	-2.4%	NHES/EPA

Water Quality - Lakes and ponds	2003	2004	2005	2006	Source
Aquatic Life					
Total acres assessed	n/a	164,609	n/a	164,472	DES-WD
Acres Fully Supporting	n/a	7,808	n/a	2,305	DES-WD
Acres Not Supporting	n/a	78,004	n/a	97,546	DES-WD
Acres Not Assessed	n/a	2,438	n/a	23,385	DES-WD
Fish Consumption					
Acres Fully Supporting	n/a	0[a]	n/a	0	DES-WD
Swimming					
Total acres assessed	n/a	164,609	n/a	164,472	DES-WD
Acres Fully Supporting	n/a	90,501	n/a	109,852	DES-WD
Acres Not Supporting	n/a	1,406	n/a	9,114	DES-WD
Acres Not Assessed	n/a	3,667	n/a	11,141	DES-WD

[a] All surface waters are impaired for fish consumption and shellfishing due to mercury

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Water Quality - Rivers and streams	2003	2004	2005	2006	Source
Aquatic Life:					
Total miles assessed	n/a	9,612	n/a	9,628	DES-WD
Miles Fully Supporting	n/a	163	n/a	338	DES-WD
Miles Not Supporting	n/a	1,091	n/a	1,855	DES-WD
Miles Not Assessed	n/a	7,298	n/a	6,728	DES-WD
Fish Consumption:					
Miles Fully Supporting	n/a	0[a]	n/a	0	DES-WD
Swimming:					
Miles Fully Supporting	n/a	891	n/a	814	DES-WD
Miles Not Supporting	n/a	441	n/a	687	DES-WD
Miles Not Assessed	n/a	8,024	n/a	7,626	DES-WD

[a] All surface waters are impaired for fish consumption and shellfishing due to mercury

Ozone Levels	2003	2004	2005	2006	Source
Ozone levels (ozone season April 1 to October 31):					
Highest 1-hour maximum hourly values in parts per million, selected monitoring sites [National Ambient Air Quality Standard (NAAQS) 0.125 parts per million (ppm)]					
Manchester	0.094	0.104	0.101	0.087	EPA
Nashua	0.101	0.110	0.105	0.091	EPA
Portsmouth	0.097	0.116	0.097	0.092	EPA
Rye	0.105	0.114	0.106	0.1	EPA
Estimated Days above NAAQS standard (0.125 ppm)	0	0	0	0	EPA
Unhealthy Days (days above 0.08 ppm/8 hours, state)	1	4	4	2	DES-ARD

Solid Waste	2003	2004	2005	2006	Source
SOLID WASTE Residential and Commercial (tons per year-thousands)					
Generated	1,347	1,451	1,443	1,336	DES-WMD
Diversion (recycling + composting)	333	519	466	412	DES-WMD
Disposed of	934	941	878	866	DES-WMD
Pounds per person per day	5.8	6.1	7.7	7.1	DES-WMD
Exported	79	43	99	28	DES-WMD
Imported (for incineration and landfill)	424	644	395	546	DES-WMD

Carbon Monoxide	2003	2004	2005	2006	Source
Highest maximum eight-hour concentration in part per million (ppm)					
Manchester	5.4	1.7	1.9	5.8	EPA
Nashua	4.0	2.8	3.3	2.7	EPA